INDEX

Journal of Nematology 22(4):i–ix. 1990.
© The Society of Nematologists 1990.

KEYWORD INDEX

1

$^{14}CO_2$ photosynthesis 506

A

acclimation 101
acetylcholinesterase 182, 481
Acremonium bacillisporum 532
adaptability 1
Aduncospiculum halicti 150
Agamermis unka 513
Alabama 45
alfalfa 69, 333, 546
alternate host 86
amaranth 327
amphimixis 386
ampulla 386
Andrenidae 150
Andropogon gayanus 262
annulation 247
Anopheles freeborni 119
antagonist 532, 567
Anthophoridae 150
antibody 16
antidote 182
Aphelenchus avenae 182
Arachis spp. 423
Arachis hypogaea 56, 268, 292, 321, 579
Arkansas 45
assay 552
assimilation 224, 506
attraction 614
Avena sativa 106
avirulent population 132

B

bacterium 525
banana 608
banana-parasitic nematode 608
bean 446
bee 150
behavior 309, 614
Belonolaimus longicaudatus 90
bioassay 176, 525, 532
biochemical marker 452
biocide 418
biological control 39, 127, 176, 187, 207, 418, 420, 513, 525, 532, 612
brown planthopper 513
burrowing nematode 399
Bursaphelenchus sp. 143, 150
Bursaphelenchus mucronatus 132
Bursaphelenchus xylophilus 113, 132, 231, 297, 506

C

Cactodera cacti 457
Cactodera eremica 386
Cactodera milleri n. sp. 457
cactus cyst nematode 457
Caenorhabditis elegans 481, 598
Californidorus clavicaudatus 162
Californidorus cylindricaudatus 162
Californidorus pinguicaudatus 162
Calonectria crotalariae 496
Cape Fynbos 200
Capsicum frutescens 56
carbamate 481
carbendazim 418
carbofuran 182
carbohydrate 119
carrot 170
cell death 386
Chaetomium 532
Chenopodium album 292, 457
Chenopodium amaranticolor 457
Chenopodium quinoa 457
chitinase 594
Chloris virgata 292
citrus 567, 590
Citrus aurantium 590
citrus nematode 45, 567, 590
cocklebur 292
coconut palm 337
Cocos nucifera 143, 337
cold hardening 101
cold tolerance 101
Colletidae 150
Colombia 262, 337
commensal association 150
common lambsquarter 457
comparative morphology 457
competition 1
cone 356
corn 106
corn cyst nematode 414
corn rootworm 127
cowpea 136
Criconemella 552
Criconemella sphaerocephala 90
Criconemella xenoplax 86, 97, 418, 489, 612
crop growth 579
cross 452
culture 321, 395, 399, 598, 608
cuticle 119, 247, 356
Cylindrocarpon destructans 594
Cyperus rotundus 292
cyst 356
cyst nematode 457

D

damage threshold 297
Datura stramonium 292
Daucus carota 170
density 1
Diabrotica barberi 127
diagnosis 8, 10, 16, 24
diagnostics 518
digital imaging 407
Diplogasteridae 150
Diplogasteritus sp. 143
disease complex 496
Ditylenchus destructor 268, 292, 321
Ditylenchus dipsaci 139, 333
diversity 1
DNA hybridization 273
DOPA 139
dopamine 139
dorsal seam 162
Dorylaimida 162
Drechmeria coniospora 532
dye 327

E

ecdysteroid 598
ecological release 1
ecology 525
economic threshold 427
ecosystem function 1
Ecuador 337
egg 399
egg hatch 136
egg parasite 594
egress 614
Elaeis guineensis 337
electrophoresis 10, 452, 538
Eleusine indica 292
embryo explant 321
end apparatus 362
energy partitioning 224
entomogenous nematode 127, 420, 513, 574
entomopathogenic nematode 187, 440
entomophilic nematode 143, 337
Entomophthorales 39
enzyme 399, 452
Eoreuma loftini 420
Epicoccum 532
esterase 452
estimating 552
Exophiala jeanselmei 532
extraction technique 399, 590

F

fallow 348
feathertop chloris 292
feeding association 86
feeding stimuli 327
feeding system 327
fenamiphos 182
Florida 337, 567
fonofos 127
food color 327
free amino acid 31
freezing tolerance 101
fungicide 418
fungus 39, 496, 532, 594, 612
fungus-nematode interaction 496, 532
Fusarium 532
Fusarium oxysporum f. sp. 333

G

Georgia 45
germination 612
global overview 1
Globodera pallida 16
Globodera rostochiensis 16, 395, 594
Glycine max 90, 220, 237, 496, 618

goose grass 292
grape 224
groundnut 579

H

Halictidae 150
heat stability 446
Helicotylenchus dihystera 552
Helicotylenchus multicinctus 608
Heterodera 356
Heterodera glycines 220, 452, 481, 496, 532, 552, 618
Heterodera schachtii 386
Heterodera zeae 414
Heteroderinae 356, 362, 386
Heterorhabditis 420
Hirsutella rhossiliensis 418, 612
histopathology 268
Hoplolaimus pararobustus 608
hormone 598
host nutrition 321
host race 56
host range 39, 279, 457, 525
host recognition 119
host status 292
hybridoma 16

I

identification 8, 10, 16, 24
immunoassay 16
in vitro 608
indicator 327
infection 594, 614
inhibition 481
interaction 333, 496, 532
interspecific variation 538
intraspecific variation 538
isocitrate dehydrogenase 538
isoelectric focusing 538
isozyme 10, 538
Italy 79

J

jimson weed 292

K

khaki weed 292
Koerneria spp. 150
Korea 513

L

leachate activity 136
leatherleaf fern 200
leguminous host 86
lesion nematode 90, 309, 525, 538
life cycle 414
light microscopy (LM) 56, 69, 79, 187, 247, 279
Longidoridae 162
Longidorus diadecturus 162
Lycopersicon esculentum 170, 207, 585
Lycopersicon peruvianum 585

M

Macrobiotophthora vermicola 39
maize 136
malate dehydrogenase 538
male development 362
management decision 427
marine nematode 247
Medicago sativa 69, 546
Meloidodera charis 362
Meloidodera floridensis 362
Meloidogyne 8, 10, 24, 273, 446, 518, 552
Meloidogyne arenaria 423, 481, 525, 585
Meloidogyne hapla 101, 170, 585
Meloidogyne incognita 90, 136, 176, 207, 224, 237, 348, 481, 525, 585
Meloidogyne javanica 56, 525, 585
Meloidogyne morocciensis n. sp. 279
Merlinius paniculoides n. sp. 79
mermithid 513
Mesocriconema xenoplax 489
Metadasynemoides cristatus 247
Mexican rice borer 420
microscopy 407
migration 614
migratory endoparasite 399
mitochondrial DNA 24, 273, 518
moisture content 113
mole cricket parasite 187
molting 362
Monochamus carolinensis 231
monoclonal antibody 16
Mononchoides sp. 143
Morocco 279
morphological variability 45
morphology 56, 69, 79, 187, 200, 214, 279
morphometrics 56, 279, 560
mortality 333
mosquito 119
multilamellar body 362
multiple mating 452
Musa acuminata 608

N

nematicide 182, 418, 481
nematode bait 327
nematode community 90
nematode development 423
nematode energy demand 224
nematophagous arthropod 567
nematophagous fungus 39, 567
Neoaplectana 187
Neocosmospora vasinfecta 532
neuromorphology 362
new species 79, 187, 200, 214, 262, 279, 337, 457, 579
Niger 579
Nilaparvata lugens 513
nonbiotic stress 1
Nordiidae 162
northern root-knot nematode 170
nuclear DNA 24
nucleic acid hybridization 24

O

oat 106
obituary 245
odontophore 162
odontostyle 162
Ogma civellae 560
Ogma cobbi 560
Ogma palmatum 560
oil palm 337
oleoresin flow 132
organophosphate 481
Oryza sativa 200
oxamyl 170, 220
oxygen 440

P

Paecilomyces lilacinus 176, 207
palm weevil 143
parallel evolution 386
Paralongidorus bullatus n. sp. 579
Paratrichodorus acutus 200
Paratrichodorus lobatus 200
Paratrichodorus minor 90
parthenogenesis 386
Pasteuria 525, 567
Pasteuria penetrans 525
pasture grass 262
pathogenicity 440, 546
pattern recognition 407
pea 614
peach 45, 97, 489
peach rootstock 279
peanut 56, 268, 292, 321, 423, 579
pepper 56
Phaseolus vulgaris 446
phasmid 362, 386
Phoma chrysanthemicola 532
phosphoglucomutase 538
phosphogluconate dehydrogenase 538
phosphoglucose isomerase 538
photosynthesis 224, 506
phylogeny 356, 362, 386
physiological disorder 594
pine mortality 297
pine sawyer 231
pine wilt disease 132, 231, 297
pinewood nematode 113, 132, 231, 297, 506
Pinus strobus 113
Pinus sylvestris 297, 506
Pinus thunbergii 132
Pisum sativum 614
plant mortality 546
plant-parasitic nematode 560
polyclonal antibody 16
polymerase chain reaction (PCR) 518
population density 106, 237, 552
population dynamics 297
potassium 612
potato 106, 303, 395
potato cyst nematode 16, 395, 594
potato rot nematode 268
Pratylenchoides camachoi n. sp. 214

Pratylenchus brachyurus 90, 525, 538
Pratylenchus neglectus 303, 546
Pratylenchus penetrans 106, 309, 614
Pratylenchus scribneri 327, 525, 538
precision 427
pruning 97
Prunus necrotic ringspot virus 489
Prunus persica 45, 97, 279, 489
purple nutsedge 292

R

Radopholus citrophilus 399
Radopholus similis 399, 608
red crown rot disease 496
red ring disease 337
red ring nematode 143
reproduction 106, 303, 321, 333, 395, 546, 618
resistance 237, 242, 321, 423, 446, 585
respiration 224
Rhabditis sp. 143
Rhadinaphelenchus cocophilus 143, 337
Rhynchophorus palmarum 143
rice 200
rice pest 513
ring nematode 86, 90, 97, 418, 489, 552
risk 427
Romanomermis culicivorax 119
root lesion nematode 106
root penetration 237
root weight 546
root-knot nematode 24, 56, 90, 136, 176, 207, 224, 237, 273, 279, 348, 423, 446, 518, 525, 552, 585
root-lesion nematode 303
Rumohra adiantiformis 200
rye 106, 348

S

Sabal palmetto 337
Saccharum hybrid 31
sampling 90, 427, 552
scanning electron microscopy (SEM) 45, 56, 69, 79, 162, 187, 247, 279, 560
Scapteriscus 187
Scots pine 297
screening 321, 327
Scutellonema brachyurum 552
Scytalidium fulvum 532
Secale cereale 106, 348
secretion 362
seed coating 170, 220
shoot weight 546
sinus 162
Sogatella furcifera 513
soil pH 440
soil texture 618
soil water potential 132
Solanum tuberosum 106, 303, 395
sorgho-sudangrass 106
sour orange 590
South Africa 200, 292
soybean 90, 220, 237, 496, 618
soybean cyst nematode 220, 452, 496, 532, 552, 618
Spain 214, 560
spiral nematode 552
spore germination 612
Steinernema 420
Steinernema bibionis 127
Steinernema carpocapsae 440
Steinernema feltiae 127
Steinernema glaseri 440
Steinernema scapterisci 574
Steinernema scapterisci n. sp. 187
Steinernematidae 574
steroid 598
sting nematode 90
Streptomyces 567
stubby-root nematode 90, 200
stylet morphology 162
sugar 224
sugarcane 31
sugarcane mosaic virus 31
suppression 333
survival 440, 525
susceptibility 321
symposium 8
synergism 333
systematics 45

T

Tagetes minuta 292
taxonomy 10, 79, 187, 200, 214, 262, 279, 457, 560, 579
Taylor's Power Law 427
Taylor, Donald P. 245
technique 590
Telotylenchinae 79
temperature 414
temperature effect 446
Teratorhabditis sp. 143
Teratorhabditis palmarum n. sp. 337
tobacco ringspot virus 489
Tobago 337
tomato 170, 207, 585
tomato ringspot virus 489
Trachypogon sp. 262
translocation 506
transmission 489
transmission electron microscopy (TEM) 247, 356
trap crop 348
Trichoderma harzianum 532
Trichoderma polysporum 532
Trichodorus philipi n. sp. 200
Trinidad 143, 337
Triticum aestivum 106, 348
Trophurus vultus n. sp. 262
Tylenchorhynchus annulatus 31
Tylenchulus palustris 45
Tylenchulus semipenetrans 45, 590
tyrosine metabolism 139

U

ultrastructure 69, 247, 362, 386

V

vacuole 247
variability 579
vertical dispersal 574
vertical distribution 90
Verticillium chlamydosporium 176, 207, 532
Verticillium lecanii 532
Verticillium suchlasporium 594
Verutus volvingentis 386
video-enhanced microscopy 309
Vigna unguiculata 136
virulent population 132
Vitis vinifera 224

W

water status 132
weed 31
wheat 106, 348
whitebacked planthopper 513
wood chip 113

X

Xanthium strumarium 292
Xiphinema americanum 162
Xiphinema attorodorum 579
Xiphinema bakeri 162
Xiphinema chambersi 162
Xiphinema coxi 162
Xiphinema coxi coxi 69
Xiphinema llanosum n. sp. 262
Xiphinema parasetariae 579
Xiphinema rivesi 162
xylem pressure potential 132

Y

yield loss 303
yield response 237

Z

Z-organ 69
Zea mays 106, 136

AUTHOR INDEX

A

Aitken, J. B. 86
Arroyo, T. L. 39

B

Bakker, J. 16
Baldwin, J. G. 356, 362, 386
Barker, K. R. 552
Barnett, O. W. 489
Basson, S. 292, 321
Batra, S. W. T. 150
Bergdahl, D. R. 113
Bernard, E. C. 39
Bird, G. W. 457
Boerma, H. R. 237
Browning, H. W. 420

C

Carta, L. K. 362, 386
Castasgnone-Sereno, P. 585
Castillo, J. M. 139
Castillo, P. 214, 560
Chang, S. 481
Chitwood, D. J. 598
Cho, M. R. 69, 162
Choo, H. Y. 513
Cole, K. J. 182
Cordero C., D. A. 356

D

D'Addabbo, T. 590
Dackman, C. 594
Dalmasso, A. 585
Davis, E. L. 399
De Waele, D. 200, 268, 292, 321
Dias, J. M. 224
Dickson, D. W. 90, 525, 538

E

Eayre, C. G. 612
Edwards, D. 245
Egberts, E. 16
Eickwort, G. C. 150
Esbenshade, P. R. 10, 452
Esser, R. P. 79

F

Fawole, B. 136
Feldlaufer, M. F. 598
Ferris, H. 176, 207, 224, 427
Florini, D. A. 106
Foord, K. E. 427
Forge, T. A. 101
Forrest, J. M. S. 395

G

Gap, G. B. 585
Gaspard, J. T. 176, 207
Gaugler, R. 440
Gerber, K. 143, 337
Giblin-Davis, R. M. 143, 150, 337
Golden, A. M. 45
Gomez-Barcina, A. 214, 560
Gommers, F. J. 16
Gonzalez Pais, M. A. 214
Graney, L. S. O. 457
Gray, F. A. 546
Greco, N. 590
Griffin, G. D. 333, 546

H

Halik, S. 113
Harris, T. S. 518
Heatherly, L. G. 618
Herman, M. 237
Hirschmann, H. 56, 279
Huettel, R. N. 532
Hussey, R. S. 8, 237
Hutzell, P. A. 414
Hyman, B. C. 24, 273

I

Idowu, A. A. 136
Ikeda, T. 132
Inserra, R. N. 45

J

Jaffee, B. A. 176, 207, 418, 612
Johnson, A. W. 348
Jones, B. L. 268
Jordaan, E. M. 292, 321

K

Kaplan, D. T. 399, 567
Kaya, H. K. 440, 513
Kerwin, J. L. 119
Kiyohara, T. 132
Koenning, S. R. 552
Krusberg, L. R. 414
Kumar, A. 395
Kung, Shang-Ping 440
Kusunoki, M. 132

L

Lenne, J. M. 262
Linit, M. J. 231
Loria, R. 106

M

MacGuidwin, A. E. 101, 614
Mateille, T. 608
McGawley, E. C. 496
McInnis, T. M. 418
McSorley, R. 90
Melakeberhan, H. 224, 297, 506
Meyer, A. J. 200
Meyer, J. R. 86
Meyer, S. L. F. 532
Mitchell, D. J. 525
Motsinger, R. E. 348
Mullens, T. A. 427

N

Nelson, S. C. 423
Netscher, C. 245
Nguyen, K. B. 187, 574
Nicholas, W. L. 247
Noe, J. P. 552
Norden, B. B. 150
Nyczepir, A. P. 45, 97

O

Olthof, Th. H. A. 303
Omwega, C. O. 446
Oostendorp, M. 525
Opperman, C. H. 481
Overstreet, C. 496

P

Panesar, T. S. 407
Payan, L. A. 538
Peet, F. G. 407
Peloquin, J. J. 273
Platzer, E. G. 273
Powers, T. O. 518
Pree, D. J. 182
Procter, D. L. C. 1

R

Rammah, A. 56, 279
Reagan, T. E. 31
Ring, D. R. 420
Robbins, R. T. 69, 162
Roberts, P. A. 446, 585
Russin, J. S. 496

S

Sahota, T. S. 407
Sandall, L. J. 518
Sayre, R. M. 532
Schmitt, D. P. 552
Schots, A. 16
Scott, J. M. 86
Scott, S. W. 489
Shao, K. P. 31
Sharma, S. B. 579
Showler, A. T. 31
Siddiqi, M. R. 262, 579
Siddiqui, I. 245
Sikora, R. A. 245
Simpson, C. E. 423
Smart, G. C., Jr. 187, 574
Starr, J. L. 423
Stewart, A. C. 247
Sutherland, J. R. 407

T

Thomason, I. J. 446
Thurston, G. S. 132
Townshend, J. L. 170, 182, 220
Triantaphyllou, A. C. 10, 452
Tsai, B. Y. 327

V

van der Walt, P. C. W. 321
Van Gundy, S. D. 327
Van Mieghem, A. P. 200
Vovlas, N. 45, 79, 560

W

Walter, D. E. 567
Washino, R. K. 119
Webster, J. M. 297, 506
Wehunt, E. J. 45
Westcott, S. W., III 489
Wilken, R. 321
Wixted, D. J. 614

Y

Young, L. D. 618
Yuan, W.-Q. 489
Yule, W. N. 132

Z

Zehr, E. I. 86, 612
Zuckerman, B. M. 139
Zunke, U. 309
Zurakowski, K. A. 119